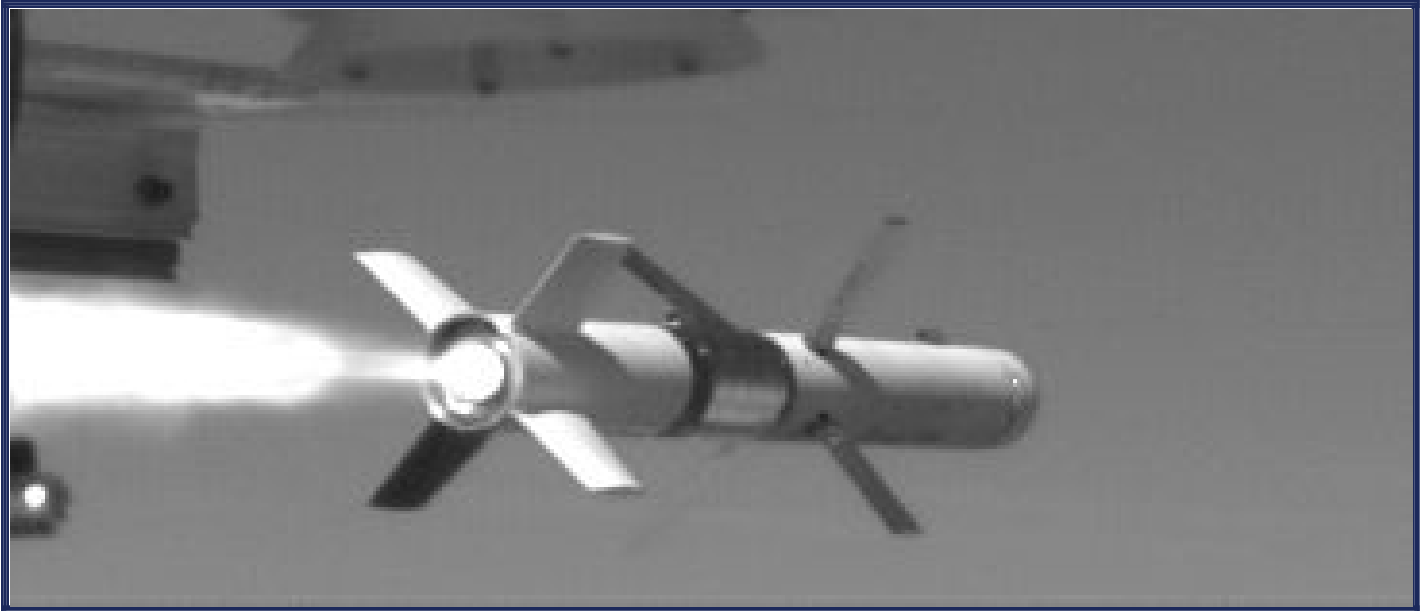




May 16, 2007

## Demonstration of new missile technology continues at NAWCWD China Lake

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By Renee Hatcher

NAWCWD Public Affairs

The Naval Air Warfare Center Weapons Division at China Lake, Calif. recently conducted its third successful demonstration, the first against a moving target, of the world's smallest "fire-and-forget" precision-guided missile.

This demonstration consisted of firing a Spike missile at a 30 mph crossing target at a range of 750 meters. The missile successfully tracked and hit a remotely controlled panel van.

"It was an absolutely perfect shot," said Steve Felix, Spike project manager. "This was the first time that the Spike missile successfully tracked and hit a moving target. Spike is the smallest guided missile in the world at 25 inches long, 2.25 inch diameter, and 5.3 pounds, and is the only missile using an electro-optical imaging strapped-down seeker."

This demonstration verified Spike's ability to acquire, track, and hit a moving target. These primary capabilities had to be demonstrated before proceeding with the remaining technology required to arm a small unmanned aerial vehicle (UAV). This technology consists of a ground based weapons control station (WCS), an RF data link, a UAV borne weapons management suite (WMS), and a miniature launcher system.

The next technology demonstration for Spike is scheduled for the fall at China Lake. It will simulate a UAV launch at altitude by placing the missile launcher on a mountain peak 750 feet above and 2,400 meters down range from the target. During this event, the target will be traveling at about 60 mph. The missile target acquisition and launch will be remotely controlled by the WCS operator located on a mountain top eight miles away.

The ultimate unit cost goal is \$5,000, which would make Spike the lowest cost guided missile currently in existence. Spike's small total weight could make it the weapon-of-choice for the small, tactical UAVs because of their limited payload capabilities. Spike's potential applications, however, go



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beyond UAV weaponization. The same missile could be shoulder-launched in ground combat or used as a force-protection weapon to defend surface ships from small-boat swarms and light aircraft.

"Spike was not designed to counter every threat on the battlefield," Felix said. "But it is extremely lethal against a broad cross-section of mobile targets and could be available to the warfighter in two to three years."

U.S. Navy Photo

At just 25 inches long, 2.25 inch diameter, and 5.3 pounds, Spike is the smallest guided missile in the world and is the only missile using an electro-optical imaging strapped-down seeker.